and advantageously about 0.2 to 0.3 millimeters in diameter.

As seen in FIGS. **1–4**, the support **14** is a one-piece molded member; although it is possible to form the support member by rigidly attaching, in a suitable manner such as by adhesives or fusion, the mounting arms to the annular portion. Advantageously, the entire support is formed from polymeric material such as tetrafluoroethylene. Alternatively, the support could be formed of metal such as stainless steel.

Since the optical element is made of soft polymeric material and therefore cannot support itself, the support is advantageously more rigid than the optical element, yet flexible and bendable. The melting point of the material forming the support is higher than the elevated temperatures used to polymerize the material forming the optical element, as will be described hereinafter.

The optical element **12**, as best seen in FIGS. **1** and **3–4**, is circular in plan view, is transparent and comprises a first surface **22** and a second surface **24**, each of which is convex. The optical element is advantageously molded as one piece onto and around the annular portion **16** and part of the mounting arms **18** and **20** so that such a portion of the support is surrounded by and embedded in the material forming the optical element.

Advantageously, the optical element is formed from a monomer formulation resulting in a silicone elastomer upon polymerization. Examples of such monomers are: hexamethyl-cyclotrisiloxane, octamethyl-cyclotetrasiloxane, decamethyl-cyclopentasiloxane, octaphenylcyclo-tetrasiloxane, diphenylsilane-diol, trimethyltriphenyl-cyclotrisiloxane, vinylmethyl-cyclosiloxanes, trifluoropropylmethyl-cyclosiloxanes, methylhydro-cyclosiloxane, hexamethyl-disiloxane, divinyltetramethyldisiloxane and tetramethyl-disiloxane. Polymerization takes places for one to two hours at a temperature of 60°–200° C.

As seen in FIGS. **3** and **4**, the support **14** is essentially centrally located in the optical element **12** equidistant from the first and second convex surfaces **22** and **24** and equally radially spaced from the outer periphery of the optical element.

As seen in FIGS. **5** and **6**, a mold **26** is used to form the intraocular lens **10** and comprises an upper part **28** with an upper concave cavity **30** and a lower part **32** with a lower concave cavity **34**. The upper and lower parts of the mold are relatively movable towards and away from each other in order to insert the support therein, introduce material forming the optical element therein, and remove the combined optical element and support once the intraocular lens is fully formed. As seen in FIG. **6**, the lower part **32** of the mold has a pair of slots **36** and **38**, which are semi-cylindrical in cross section, for the reception of the mounting arms in the support. Similar slots, not shown, are also found in the upper part of the mold.

Thus, in forming the intraocular lens **10** in accordance with the invention, the mold parts are opened, and then the support **14** is positioned in the mold so that the annular portion **16** and part of the arms are located in the lower cavity **34** as seen in FIG. **6**.

Then, a monomer formulation in liquid form, having a volume somewhat greater than that of the two cavities, is introduced into the lower mold cavity and the mold is closed with the excess volume leaking out between the mold parts. The mold is then heated for a predetermined time at an elevated predetermined temperature that will polymerize the monomers located therein into a solid polymer. As seen in FIGS. **5** and **6**, when the material in liquid form is introduced into the mold, it surrounds the portion of the support located therein so that the support is ultimately embedded therein after polymerization.

Following polymerization of the optical element material, the mold is opened and the combined optical element and support are removed therefrom.

Rather than introducing the liquid monomers into an open mold and then closing the mold, the mold can be closed after insertion of the support and the monomers then can be injected into the mold under pressure via a suitable input port. Polymerization as described above then takes place.

As an alternative to silicone polymer, a hydrogel polymer can be used to form the optical element. This material is very hard when dry and becomes soft after it is hydrated. When this material is used, the mold need only encase the support in a block of the hydrogel polymer and, after removal from the mold, the block can be lathe cut to a precise optical shape.

While one advantageous embodiment has been chosen to illustrate the invention, it will be understood by those skilled in the art that various changes and modifications can be made therein without departing from the scope of the invention as defined in the appended claims.

What is claimed is:

1. An intraocular lens, the combination comprising:
a soft, resilient optical element; and
a resilient support having an annular portion and mounting arms,
said annular portion being completely embedded in and completely surrounded by the material forming said optical element,
said mounting arms being coupled to said annular portion and extending outwardly of the material forming said optical element.

2. An intraocular lens according to claim **1**, wherein said support is integrally formed as one piece.

3. An intraocular lens according to claim **1**, wherein said support is formed of polymeric material.

4. An intraocular lens according to claim **3**, wherein said polymeric material is tetrafluoroethylene.

5. An intraocular lens according to claim **1**, wherein said optical element is formed of polymeric material.

6. An intraocular lens according to claim **1**, wherein said optical element is formed of silicone.

7. An intraocular lens according to claim **1**, wherein said optical element is formed of polymeric material, and
said support is formed of polymeric material.

8. An intraocular lens according to claim **1**, wherein each of said mounting arms has a portion extending substantially tangentially of said annular portion.

9. An intraocular lens according to claim **8**, wherein said annular portion and said mounting arms lie substantially in the same plane.

10. An intraocular lens according to claim **1**, wherein said annular portion and said mounting arms lie substantially in the same plane.

* * * * *